

ABSTRACT OF THE DISCLOSURE

A gain control circuit comprises a variable gain circuit having a predetermined gain control range and a control voltage supply circuit for supplying an internal control voltage to the variable gain circuit as a gain control signal. In this gain control circuit, the control voltage supply circuit generates the internal control voltage in response to an external control voltage so as to compensate the linearity of the variable gain circuit to the extent of the external control voltage where the variable gain circuit loses linearity. This gain control circuit is applied to an AGC circuit of the transmitting stage in a CDMA-type mobile phone.

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English translation of drawing sheet

FIG. 1

11, a variable gain circuit

14 & 17, buffer amplifier

5 There is no in Fig.2

Fig.3A

Vc, internal control voltage

The present invention

Conventional embodiment

10 Fig.3B

VC, external control voltage

gain (dB)

linear range

The present invention

15 Conventional embodiment

Fig.4

35, control voltage supply circuit

31,32 & 33, a variable gain circuit

Fig.5

20 42, a band separation filter

46 & 48, AGC

Fig.6

108, control voltage supply circuit

47, baseband IC

25 Fig.7

Transmission gain (dB)

VC, external control voltage